

# **ADHIYAMAAN COLLEGE OF ENGINEERING (AUTONOMOUS)**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING**

**PROFESSIONAL READINESS FOR INNOVATION, EMPLOYABILITY  
AND ENTREPRENEURSHIP**

**TOPIC: CAR RESALE VALUE PREDICATION**

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## **CONTENTS**

- 1. Introduction**
- 2. LiteratureSurvey**

**3. Ideation & ProposedSolution**

**4. Requirement Analysis**

**5. Project Design**

**6. Project Planning & Scheduling**

**7. Coding & Solutioning**

**8. Testing**

**9. Results**

- a. ProjectOverview
- b. Purpose
  
- a. ExistingProblem
- b. References
- c. Problem Statement Definitions
  
- a. Empathy Map Canvas
- b. Ideation& Brainstorming
- c. ProposedSolution
- d. ProblemSolution Fit

- a. FunctionalRequirement
  - b. Non-Functional Requirement
- 
- a. Data Flow Diagrams
  - b. Solution& Technical Architecture
  - c. User Stories
- 
- a. Sprint Planning & Estimation
  - b. Sprint Delivery Schedule
  - c. ReportsFrom JIRA
- 
- a. Feature 1
  - b. Feature 2
- 
- a. TestCases
  - b. User Acceptance Testing

#### 9.1 Performance Metrics

### 10. Advantages & Disadvantages

### 11. Conclusion

### 12. Future Scope

### 13. Appendix

## **ACKNOWLEDGEMENT**

On the submission of this report on “CAR RESALE  
VALUE

PREDICTION”, we would like to extend our gratitude and sincere thanks to our Mentor ANAJANA DEVI , Assistant Professor, Department of ECE for his constant motivation and support during the course. We truly appreciate and value his good guidance and encouragement from the beginning to the end of this project. We are indebted to his help for having helped us shape the problem and providing insights towards the solution.

## **1. INTRODUCTION**

The world's business sector is escalating and is constantly seeking information and experiences that are commonly beneficial to individuals. Young specialists who need to stay in their current positions are always looking for advanced degrees to help them address their skills and information. As such, the number of international sophomores applying for graduation exams has increased over the past decade. One of their main concerns is getting into their university. You can see that undergraduates are actually choosing to get their education at prestigious universities. Furthermore, when it comes to international alumni, the United States is the main trend for most of them. The most prestigious universities offer a wide range of courses accessible in any order, exceptionally accredited teaching and education programs, and international second Research Scholarships for degrees are available.

According to Gauges, more than 4,444 of her 10 million international sophomores are enrolled in her 4,200+ colleges and universities, both pri

vate and public. In general, the number of undergraduates concentrated in America comes from Asian countries such as India, Pakistan, Sri Lanka, Japan and China. Select the United Kingdom, Germany, Italy, Australia, Canada as well as the United States. These countries are witnessing a rapid increase in the number of individuals seeking more advanced investigations. The basic reason why sophomores go on to master's programs in foreign graduate schools is that the number of vacancies is low and the number of people in these positions in each country is huge. This has led many professional undergraduates to pursue postgraduate studies. You can see that there are quite a few bachelor's degrees and master's degrees in computer science at US universities. The focus of this study applies to these undergraduate degrees. Many schools in the US follow comparative requirements for undergraduate accreditation. Schools consider several variables, including placement in fitness assessments and school performance ratings. English rankings are determined by exposure in English

proficiency tests such as TOEFL and IELTS.

The University's Admissions Advisory Board makes decisions regarding the acceptance or rejection of specific young researchers based on the general profile of the applicant's application. Records recorded with this company are marked with informative areas. Acknowledgment is a 400-row data set containing seven different autonomic factors. ie

- a. Graduate Record Examination 1 (GRE) score. The score consists of 340 points.
- b. English as a Foreign Language (TOEFL) test score. It consists of 120 proficiency areas.
- c. University Rating. Shows the position of colleges offering bachelor's degrees among various colleges. Your score will be out of 5.
- d. Statement of Purpose (SOP), a record written to reveal the life, motivations and inspirations of a selected degree/college applicant. The score consists of five focal points.
- e. The strength of a letter of recommendation (LOR) verifies the applicant's professional experience, falsifies validity, supports certainty, and guarantees your competence. The score consists of five focal points.
- f. Undergraduate GPA (CGPA) from 10.

- g. Research experience (either 0 or 1) that could support the application, such as distributing research papers at conferences or filling out as a flight-hand exam for university faculty. One valid variable can be anticipated which is possibility of affirmation, that is as per the input given will be going from 0 to 1.

## PREREQUISITES

### Anaconda Installation:

Anaconda is a distribution of the Python and R programming languages for scientific computing that aims to simplify package management and deployment. The distribution includes data science packages suitable for Windows, Linux, and macOS. Developed and maintained by Anaconda. Founded in 2012 by Peter Wang and Travis Olyphant. As Anaconda, also known as Anaconda Distribution or Anaconda Individual Edition, the company's other products include the Anaconda Team Edition and Anaconda Enterprise Edition, neither of which are free.

### 1. IDEATION AND PROPOSED SOLUTION

Ideation is the process where you generate ideas and solutions through sessions such as Sketching, Prototyping, Brainstorming, Brainwriting, Worst Possible Idea, and a wealth of other ideation techniques. Ideation is also the third stage in the Design Thinking process. In this project the ideation phase consists of,

1. Empathy Map
2. Brainstorming
3. Proposed Solution
4. Problem Solution Fit

### 1. CODING & SOLUTIONING

- a. Feature 1

The new feature will predict the chances in the admission of the university. The feature was designed in the html code connected with app.py as the backend.

Source Code :

```
<html>
<head>
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.0/dist/css/bootstrap.min.css" rel="stylesheet"
      integrity="sha384-gH2ylJqKdNHPEq0n4Mqa/HGKIhSkIHeL5AyhkYV8i59U5AR6csBvApHHNl/vl1Bx" crossorigin="anonymous">
<meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>University admission prediction System </title>
<link rel="icon" type="image/jpg"
      href="https://png.pngtree.com/png-vector/20200211/ourmid/pngtree-graduation-caps-vector-convocation-students-png-image_2144286.jpg">
<!--
<style>.center {
/*display:
block;
margin:
0;
margin-left:
auto;
margin-right:
auto;
width:
230px;
height:
161px;
padding:
0px;
padding-left:
161px;
padding-right:
161px;
padding-top:
230px;
padding-bottom:
230px;
}
body {
background-image: url('nochance_output.png');
background-repeat: no-repeat;
background-attachment: fixed;
```

```

background-
size: cover;
}
</style>--></head>
<body >
<div class="row" >
<div class="col-md-6"><div class="col-md-12">
<h1 style="text-align: center;">You have a chance</h1>

<h4 style="width: 750px;
height: 161px;
padding-left: 161px;
padding-top: 75px;">{{prediction_text}}</h4></div></div><div class="col-md-
6"><div class="col-md-12">
</div></div></div>

</body>
</html>

```

## b. Feature 2

The new feature will predict the low chances in the admission of the university.

The feature was designed in the html code connected with app.py as the backend.

Source Code:

```

<html>
<head>
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.0/dist/css/bootstrap.min.css" rel
="stylesheet" integrity="sha384- gH2yIJqKdNHPEq0n4Mqa/HGKIhSkIHeL5AyhkYV8
i59U5AR6csBvApHHNl/vI1Bx" crossorigin="anonymous">
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<title>University admission prediction System </title>
<link rel="icon" type="image/jpg"
href="https://png.pngtree.com/png-vector/20200211/ourmid/pngtree-
graduation-caps-vector-convocation-students-png-
image_2144286.jpg">
<!--
<style >.center {
/*display:

```



```

    block;
    margin-
    left:auto
    ; margin
    -
    right: au
    to;*/wid
    th:
    230px;

height:
    161px;
padding
-
left:161
px;padd
ing-
top: 230
px;
}
.body {
    background-
    image: url('nochance_output.png');
    background-repeat: no-repeat;
    background-
    attachment: fixed;
    background-
    size: cover;
}
</style>--></head>
<body >
<div class="row" >
<div class="col-md-6"><div class="col-md-12">
    <h1 style="text-align: center;">You Dont have a chance</h1>

<h4
style="width:
750px;height
: 161px;
padding-left:161px;
padding-top: 75px;">{{ prediction_text }}</h4></div></div><div class="col-md-
6"><div class="col-md-12">

</div></div></div></body>

```

</html>

### c. Database Schema

The database used here in this project was Admission\_Predict.csv. The sample screenshot of the database are,

#### **PYTHON CODE:**

##### **app.py**

```
import pandas as pd

from flask import Flask,
request, jsonify, render_templateimport
pickle

import pyrebase

app = Flask(__name__)

model = pickle.load(open('linear_regression_model_
sc.pkl', 'rb'))config = {

    "apiKey": "AIzaSyCpueysTCJjW8t3-r-
gV4N0PrZY2VZbA", "authDomain": "university-
admit-predictor.firebaseio.com",

    "databaseURL": "https://university-admit-predictor-default-
rtbd.firebaseio.com", "projectId": "university-admit-predictor",

    "storageBucket": "university-admit-
predictor.appspot.com", "messagingSenderId": "
471033088541",

    "appId": "1:471033088541:web:2d05bfca07ad
298f2cd4f4", "measurementId": "G-
DCEHDHRG4K"
```

```
}
```

```
#initialize firebase
```

```
firebase = pyrebase.initialize
```

```
_app(config)auth=
```

```
firebase.auth()
```

```
@app.route("/register", methods= ["POST", "GET"])
```

```
def regiter():
```

```
    if request.method == "POST":
```

```
        global name    #Only if data has  
        been
```

```
        postedname=request.form.get('na  
me') email=request.form.get('ema  
il') password=request.form.get('p  
ass') cpassword=request.form.get  
('cpass')
```

```
    try:
```

```
        if(password==cpassword): user=auth.create_user_with_email_and_password(e  
mail,password)
```

```
        return
```

```
    render_template("login.html")
```

```

    )#return

    render_template("login.html"

    ) except:

        #return "Your passwaord could not be same Please Try Again"

        return render_template("signup.html",cerror="Your passwordcould
not be same or AlreadyExist account")

```

```

#L
ogi
n
@a
pp.
rou
te("
/")

```

```

def login():

    return

render_template("login.ht
ml")@app.route("/signup")

def signup():

    return render_template("signup.html")

```

```

@app.route

('/welcome'

)def home(

):

    return

render_template('index.html') @app.ro

ute("/result", methods = ["POST",

"GET"])def result():

    """if('user' in session):

        return "Hi{ }".format(session["user"])"""

    ifrequest.method

    == "POST":        #Onlyif data has been postedem

        ail=request.form.get('email') password=request.fo

        rm.get('pass')

        try:

            #Try signingin the user with the giveninformation

            user =

            auth.sign_in_with_email_and_password(email,

            password)returnrender_template("index.html")

        except:

            return render_template("login.html",error="Your Email and PasswordInvalid Please Trylogin again or SignUp")

```

```

@app.route('/predict', methods=['
GET','post'])def predict():

    GRE_Score = int(request.form['GRE
Score']) TOEFL_Score =
int(request.form['TOEFL
Score']) University_Rating = int(request.form
['University Rating'])SOP =
float(request.form['SOP'])
LOR =
float(request.form['LOR'])
CGPA =
float(request.form['CGPA'])
Research = int(request.for
m['Research'])

    final_features = pd.DataFrame([[GRE_Score, TOEFL_Score, University_Rating,
SOP, LOR,CGPA, Research]])

    predict = model.predict(final_features)

    output
    = pre
    dict[0]
    if(out

```

```

        put>5

    0):

        return render_template('chance.html', prediction_text='Admission chances are
    {}'.format(output))

    at(o

    utp

    ut))

    else

    :

        return render_template('nochance.html', prediction_text='Admission chances
        are
    {}'.format(output))

if __name__ ==
    =

    "_main_":

    app.run(d

    debug=True

    ue)

```

## GITHUBLINK:

<https://github.com/IBM-EPBL/IBM-Project-19030-1659692233.git>